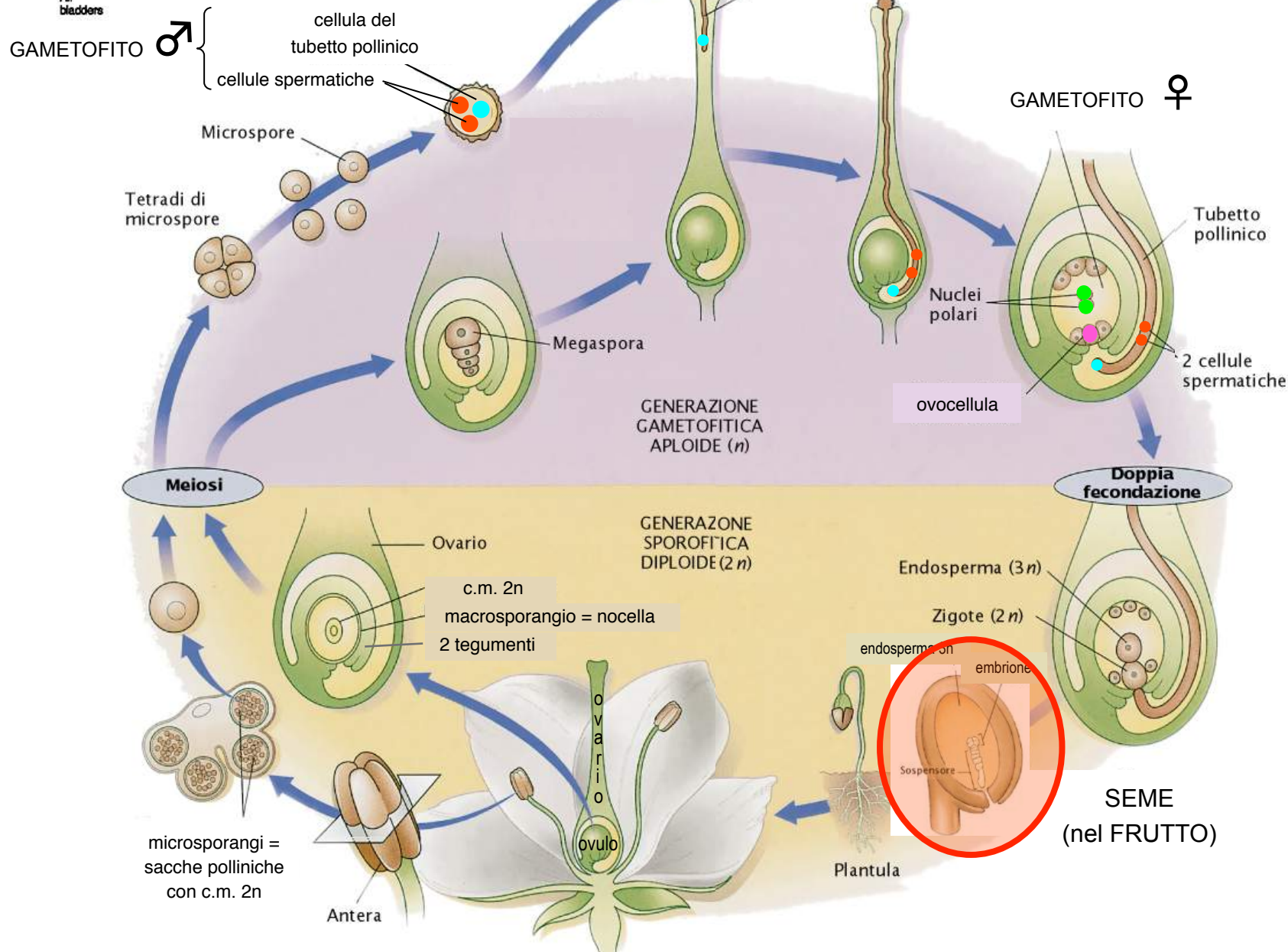
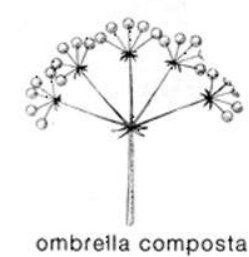


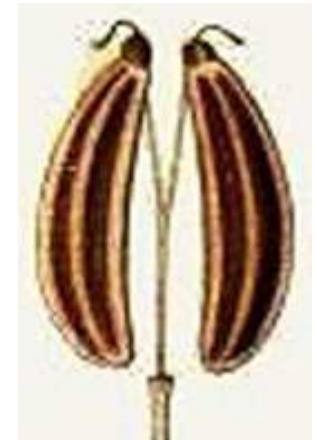
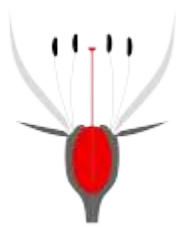
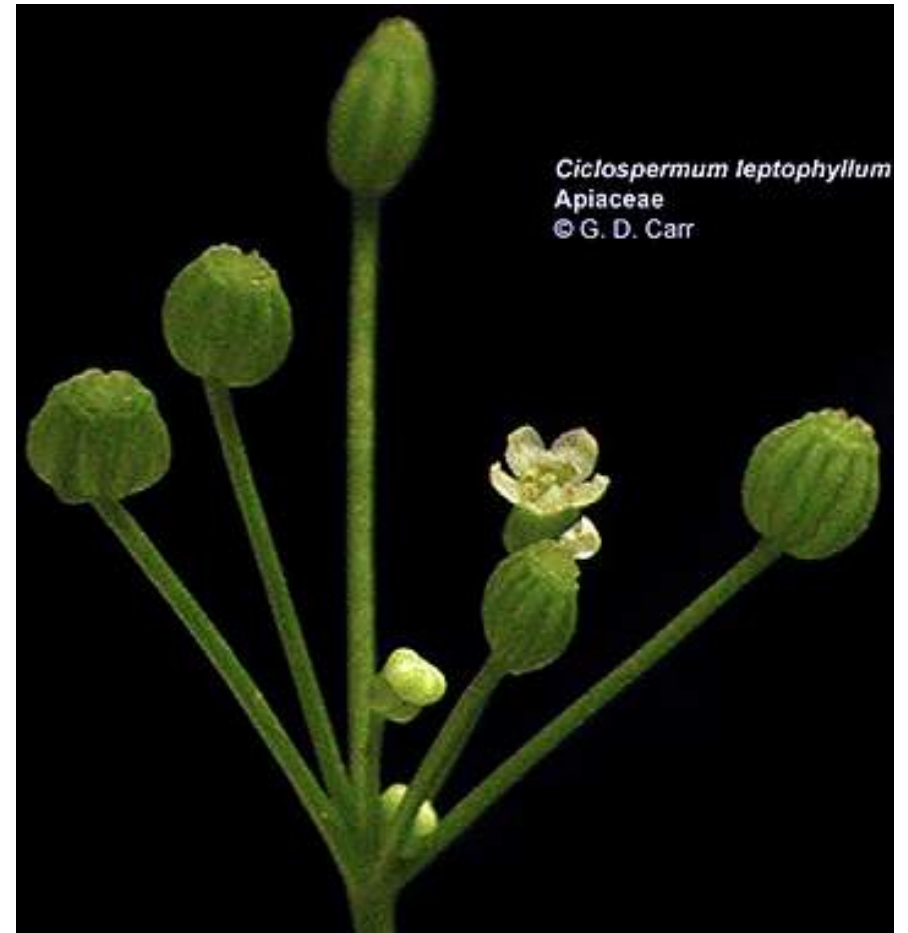
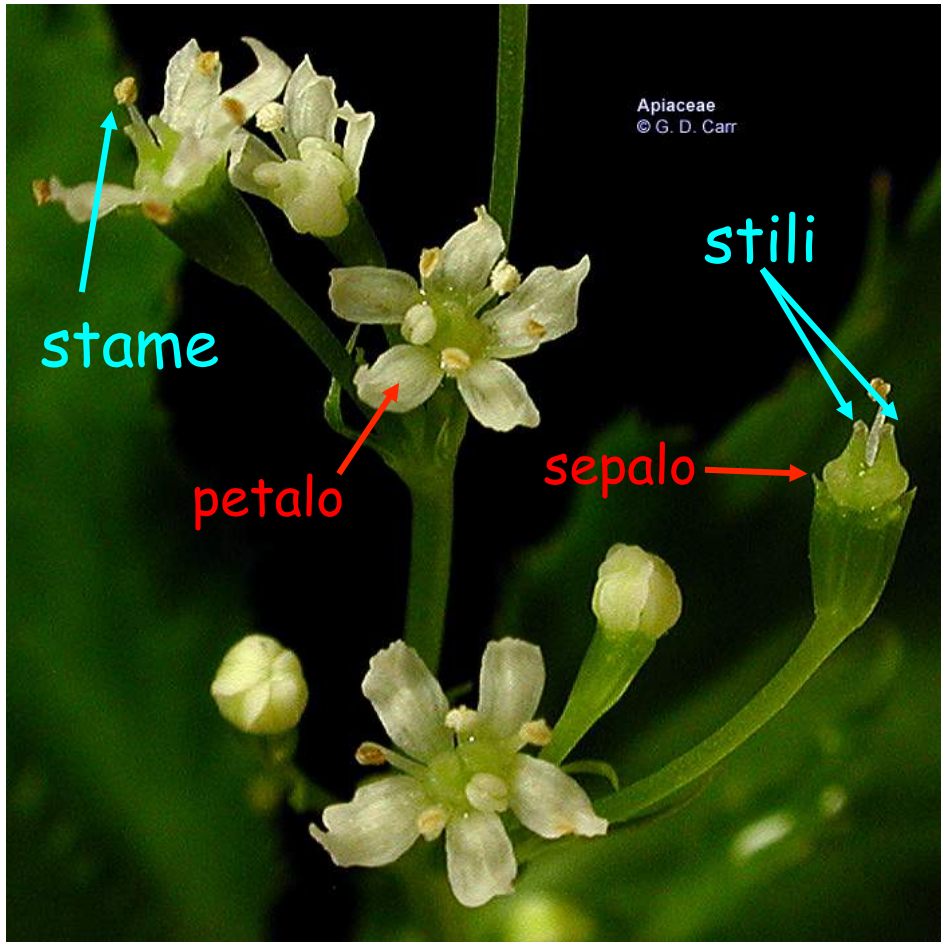
IMPOLLINAZIONE



Umbelliferae o Apiaceae

>4.000 spp.







Heracleum sphondylium

Petroselinum crispum *prezzemolo*



Foeniculum vulgare *finocchio*



Apium graveolens *sedano*



Conium maculatum *cicuta*

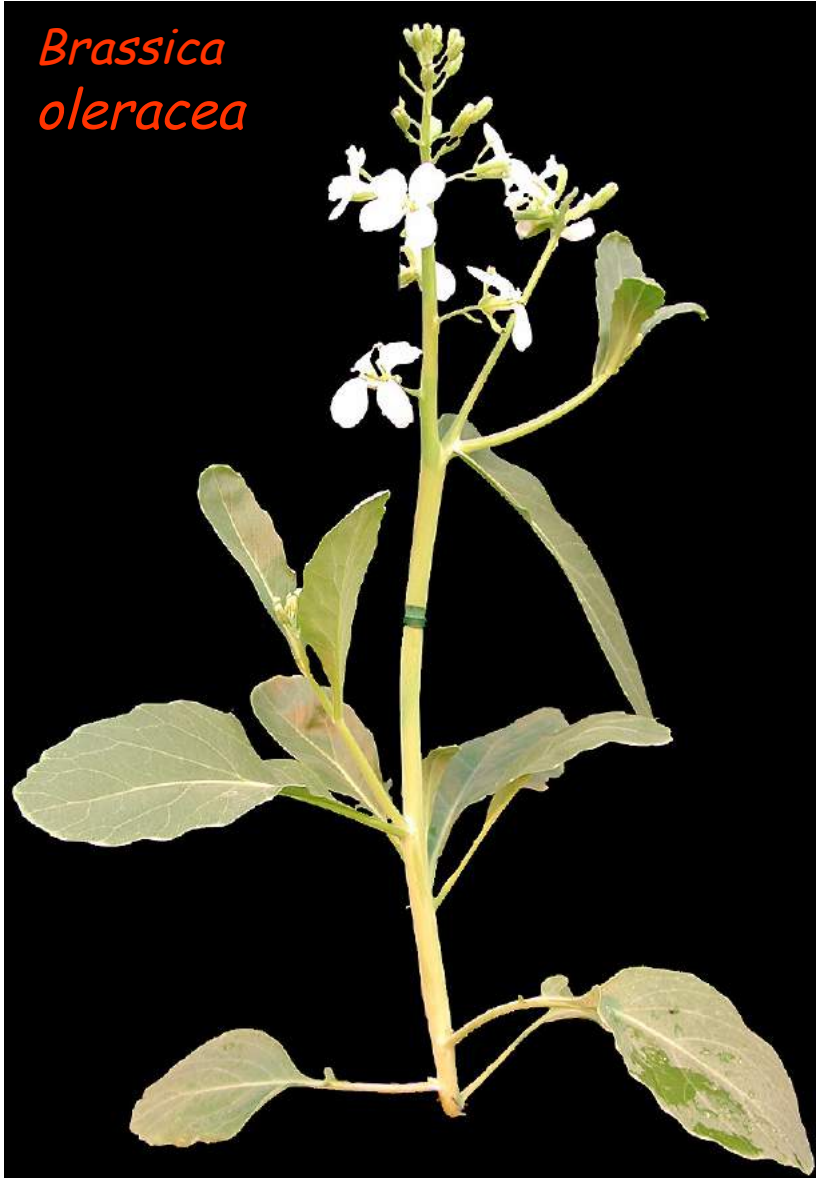


Daucus carota

Brassicaceae o Cruciferae

≈ 7.000 spp.

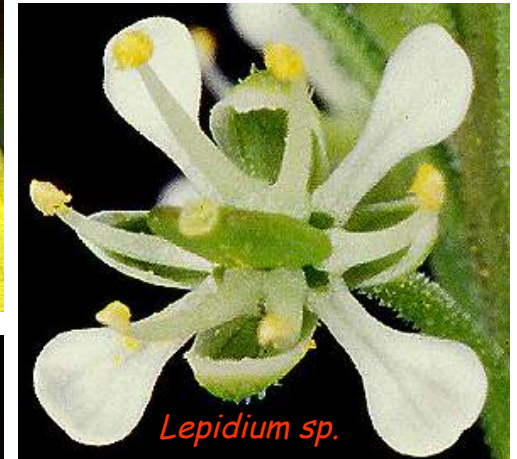
Brassica oleracea



Brassica sp.



Nersyrenia sp.

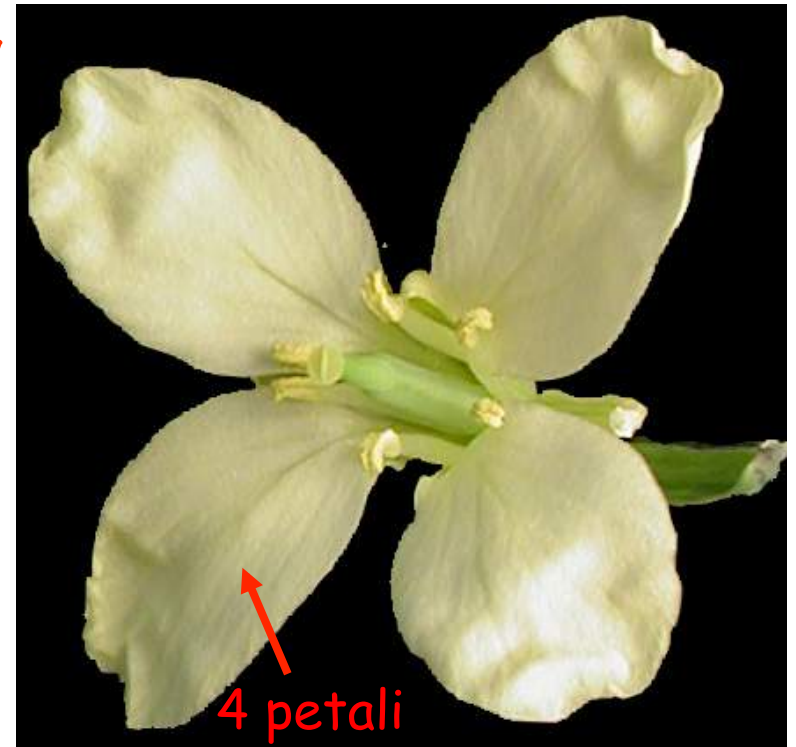
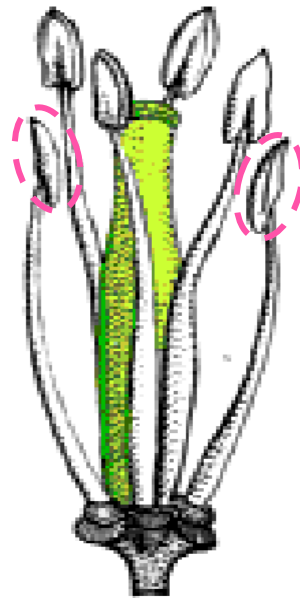
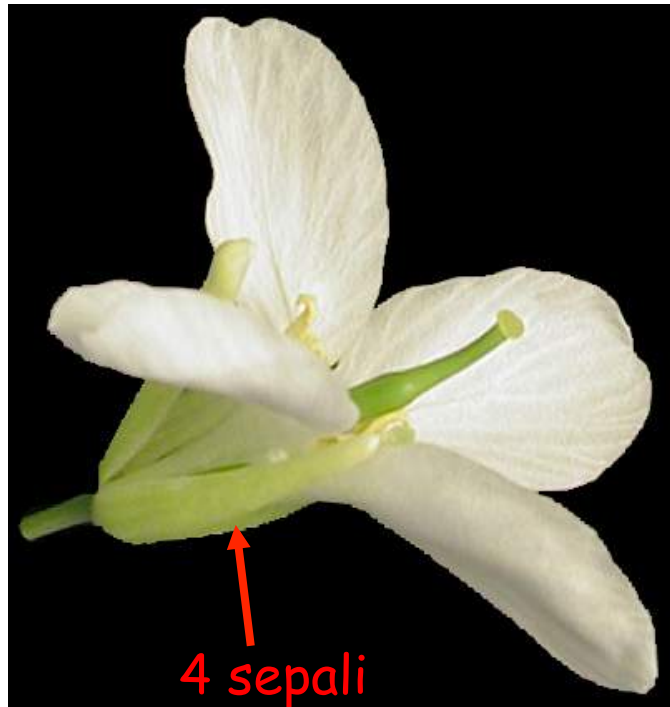


Lepidium sp.



Rorippa sp.

Brassica oleracea





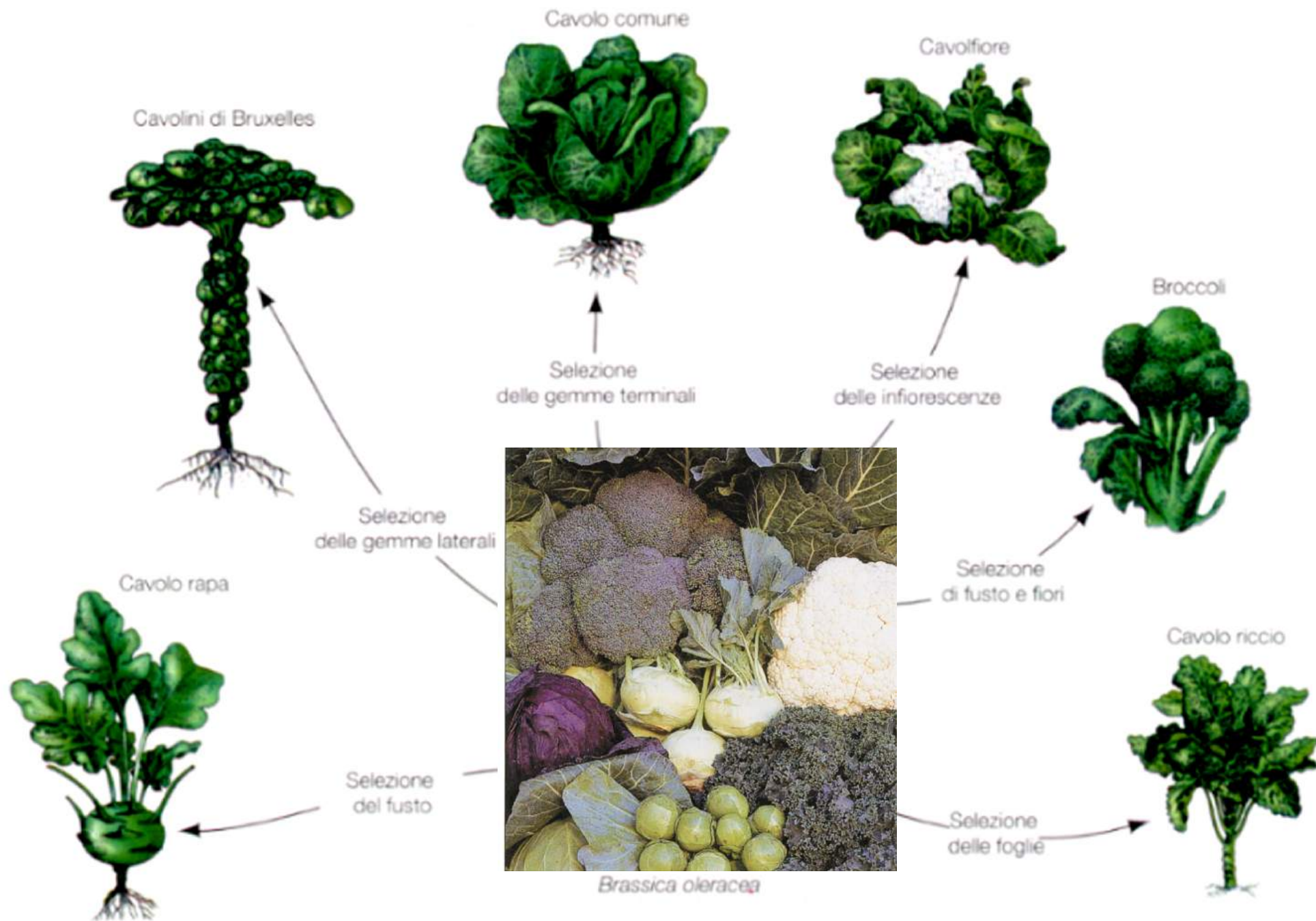
Sinapis alba



Eruca sativa



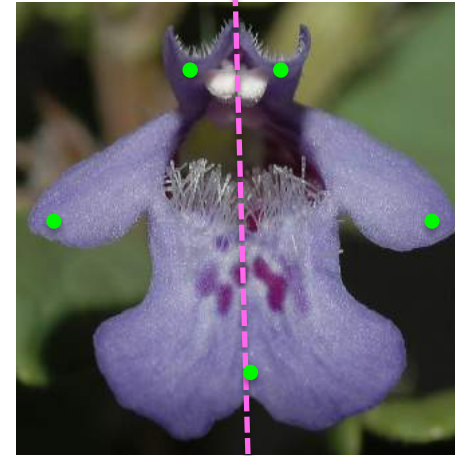
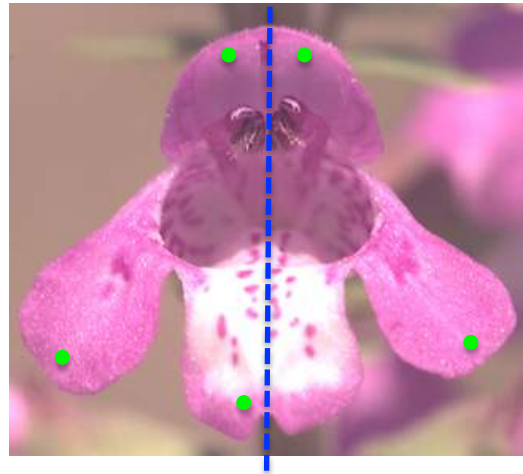
Raphanus sativus



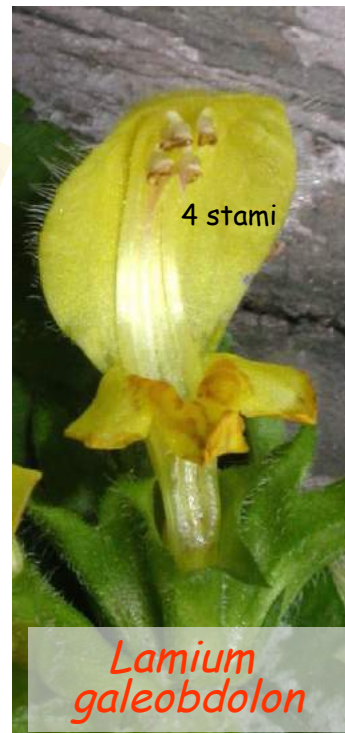
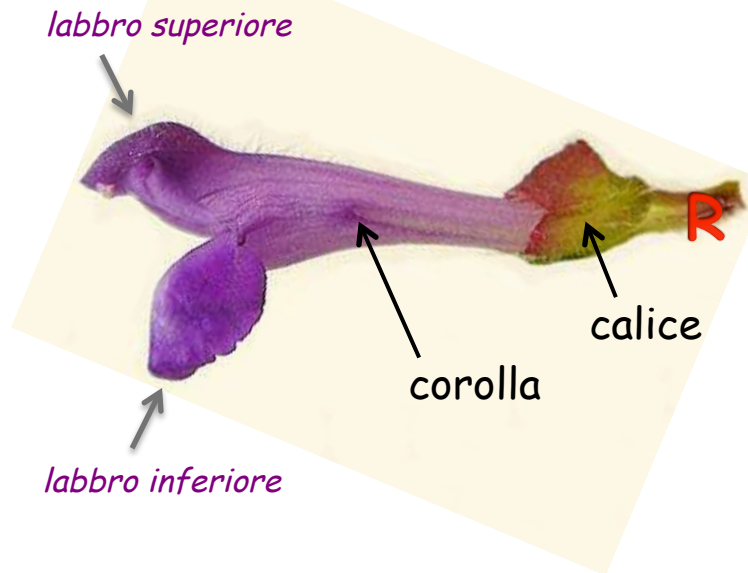
simmetria raggiata



Labiatae o Lamiaceaeae ≈ 7.000 spp.



simmetria bilaterale



frutto

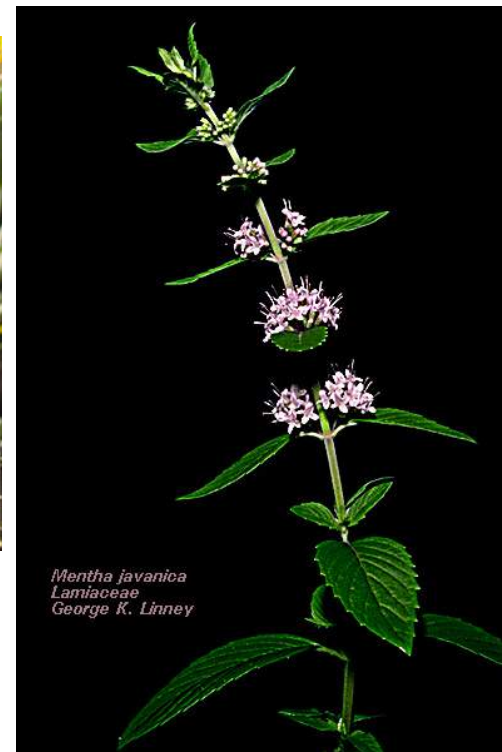
basilico *Ocimum basilicum*



maggiorana *Origanum majorana*



timo *Thymus vulgaris*



lavanda *Lavandula* sp.

Phaseolus vulgaris L.



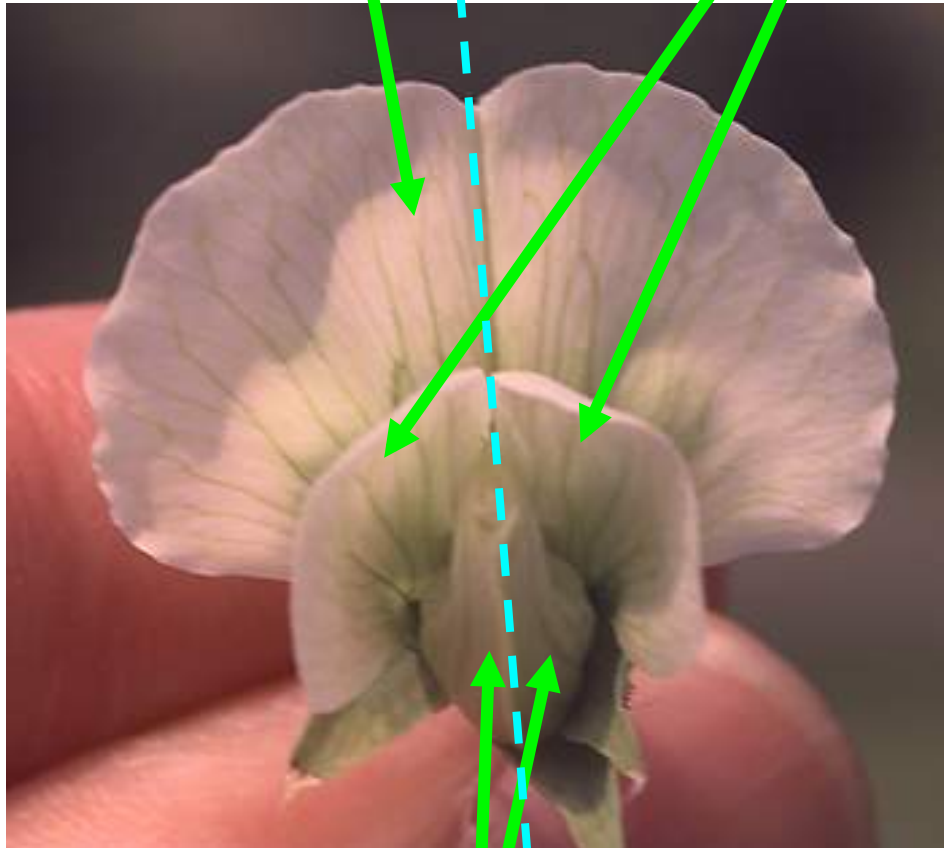
Fabaceae o Leguminosae

18.000 spp.



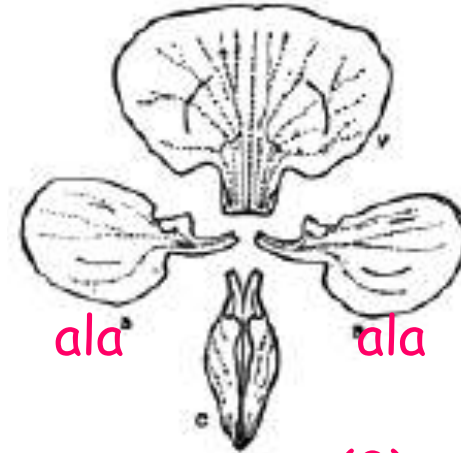
Vicia faba
Pisum sativum
Cicer arietinum
Lens culinaris
Phaseolus sp.

vessillo ali



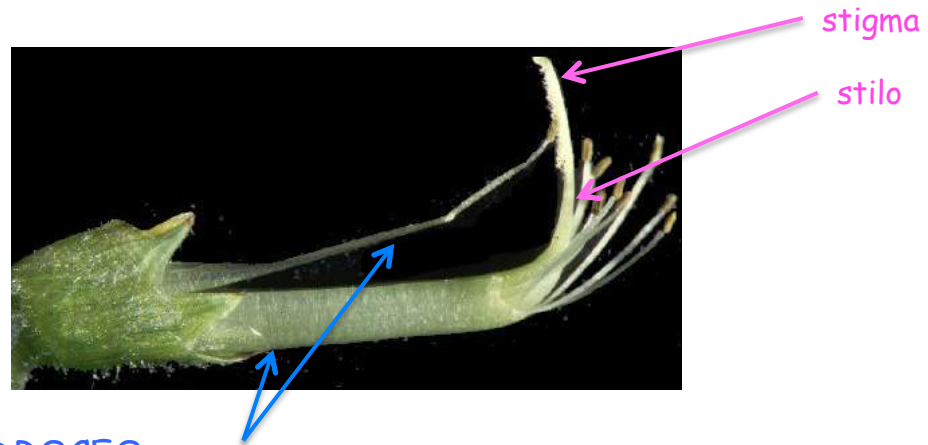
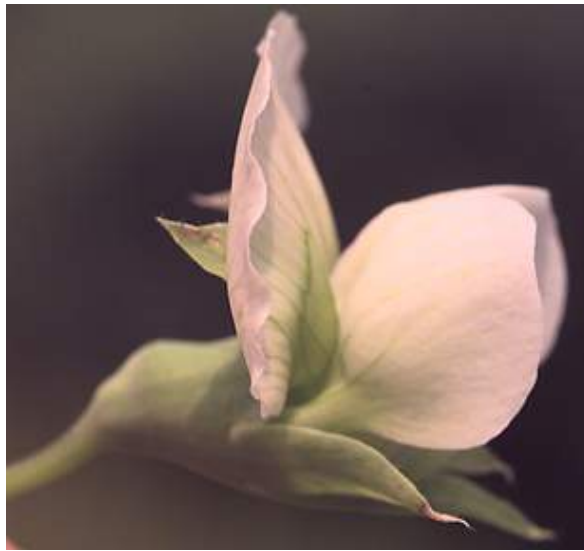
carena

vessillo



carena (2)





ANDROCEO:
9stami parzialmente fusi
+ 1 libero

GINECEO:
1 carpello

antere



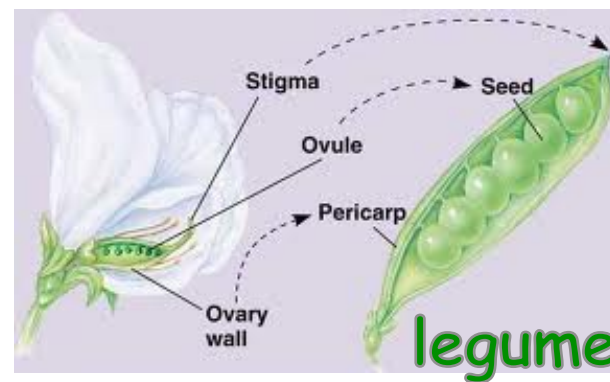
stigma
stilo



frutto = legume

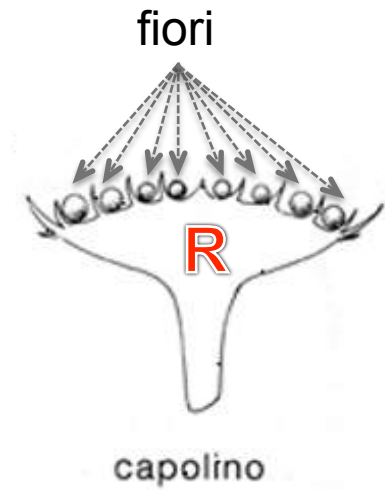


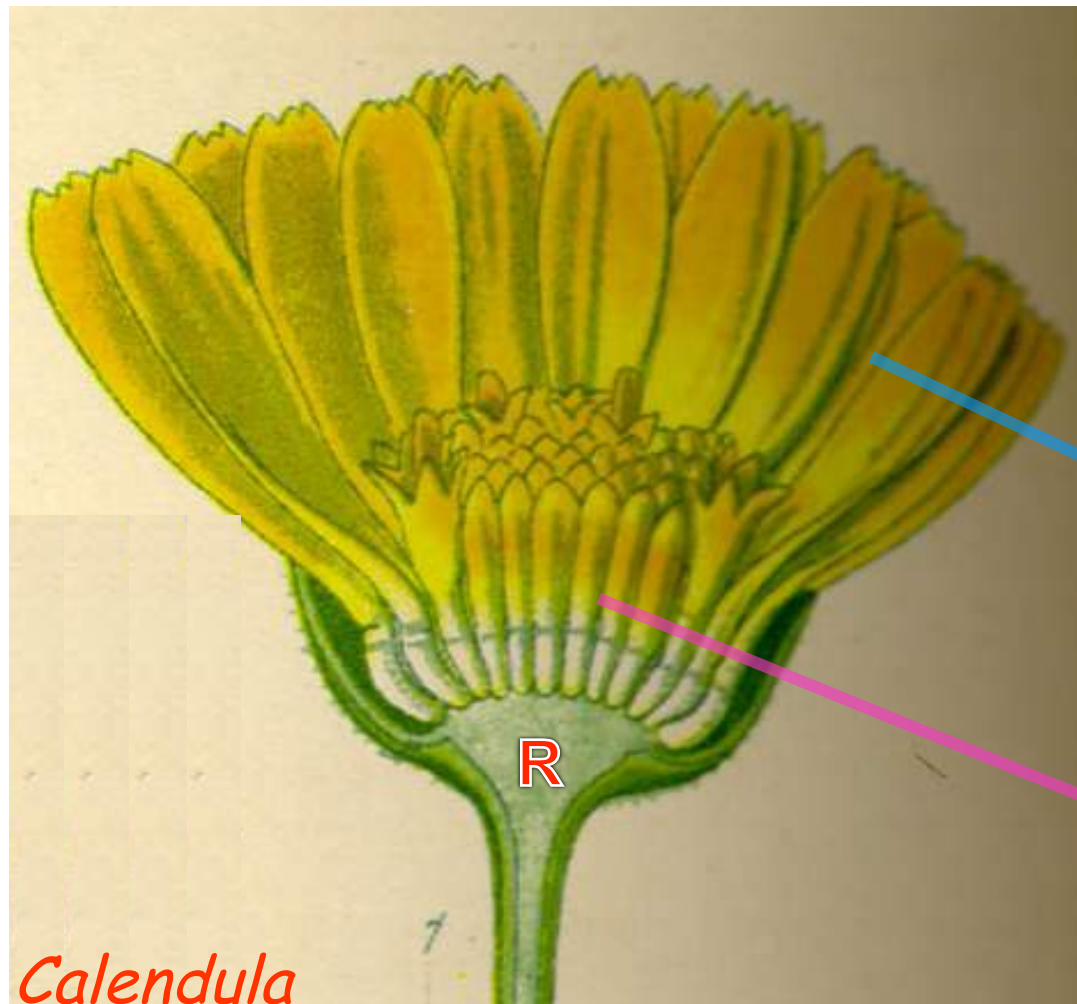
Phaseolus
coccineus



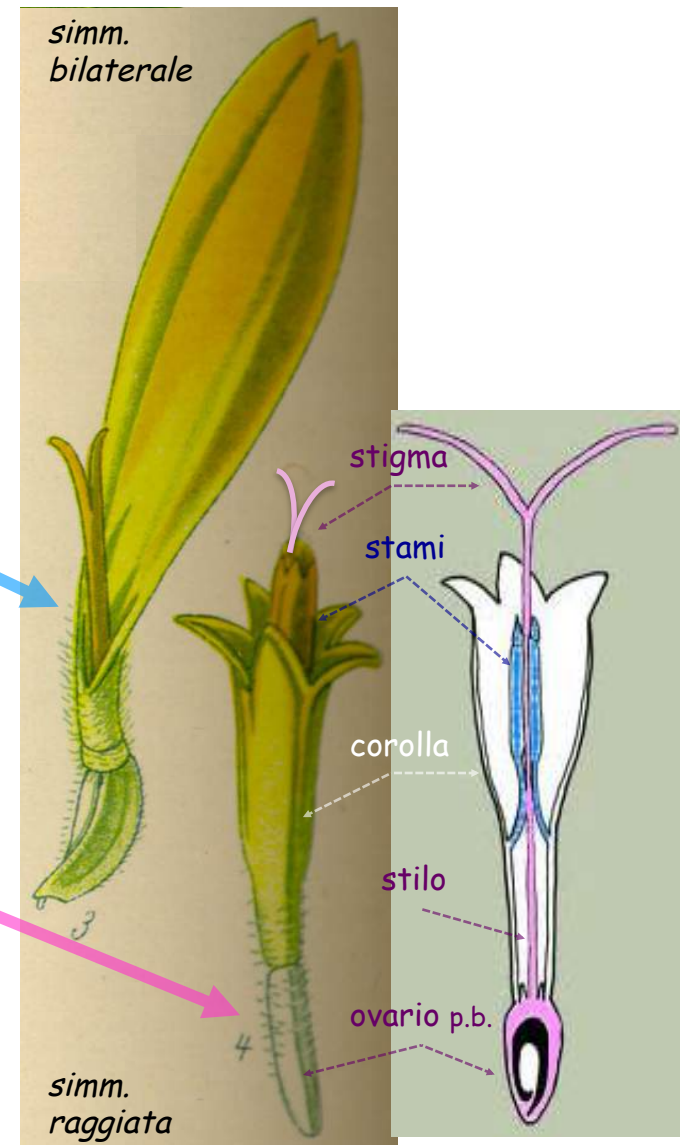
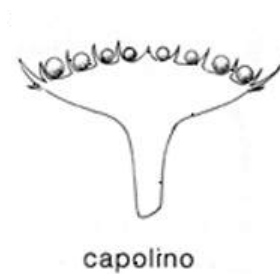
Asteraceae o Compositae

>20.000 spp.!!!

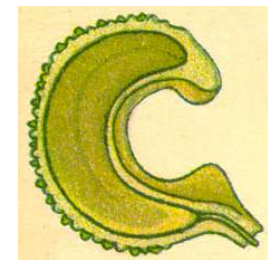




*Calendula
officinalis*



frutto





Matricaria sp.



Helianthus sp.



Bellis sp.



Zinnia sp.



Inula sp.



Osteospermum sp.

Cynara sp.



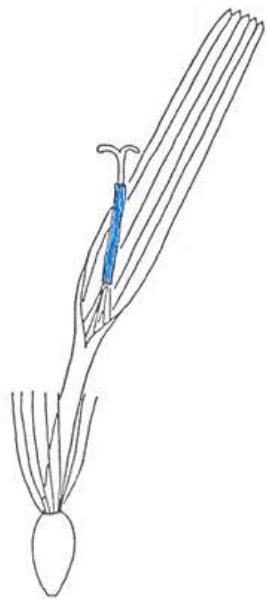
Carduus sp.



Cirsium sp.



Echinops sp.



Taraxacum sp.



capolino



fiore



frutto



Cichoria sp.



Lactuca sp.

Poaceae o Graminaceae

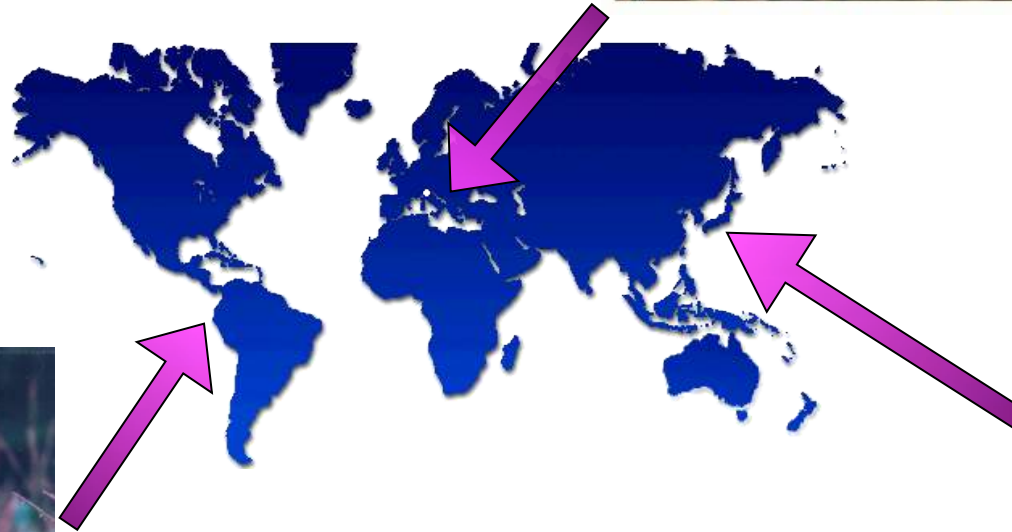
8.000 spp.!!!



Triticum sp.



Hordeum sp.



Zea mais



Oryza sp.



praterie



steppe



savane



tundre

Triticum sp.



Avena sp.



Oryza sp.



Hordeum sp.



Zea mais

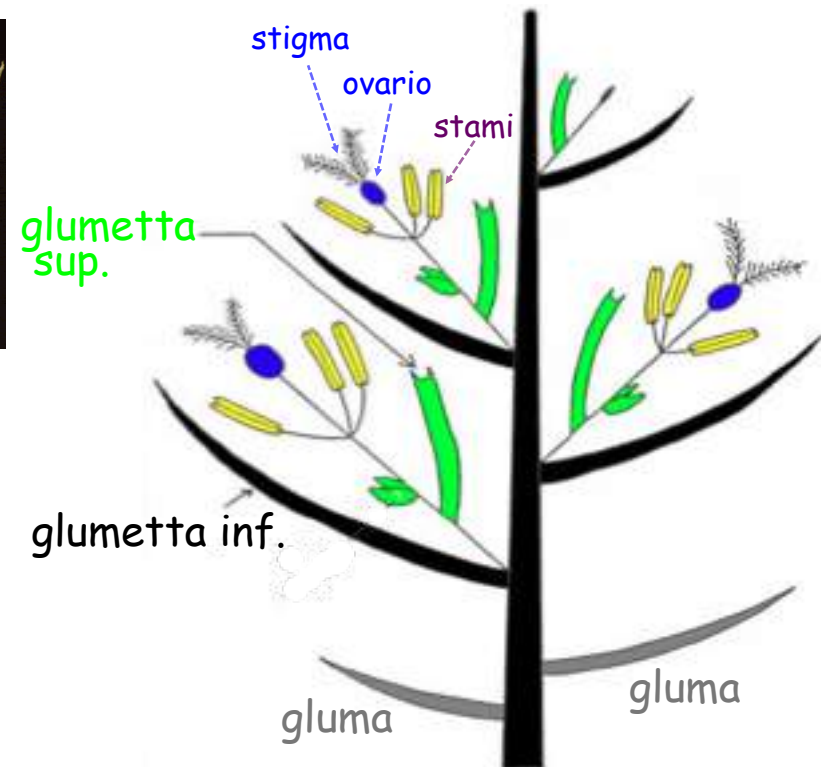
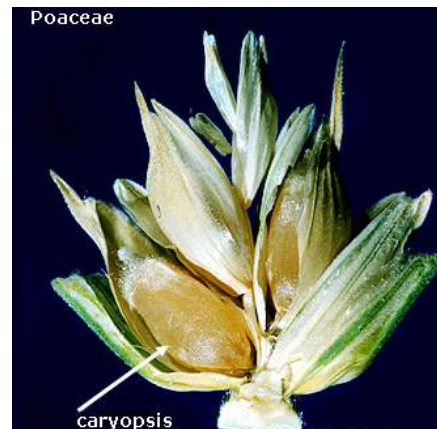
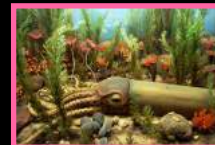


TABELLA 21-1 Alcuni eventi biologici importanti nel tempo geologico

Eone	Era	Periodo	Epoca	Tempo*
Eone Fanerozoico	Era Cenozoica	Periodo Quaternario	Epoca Olocene	10.000 anni fa
			Epoca Pleistocene	2,6 milioni di anni fa
		Periodo Neogene	Epoca Pliocene	5 milioni di anni fa
			Epoca Miocene	23 milioni di anni fa
		Periodo Paleogene	Epoca Oligocene	34 milioni di anni fa
			Epoca Eocene	56 milioni di anni fa
	Era Mesozoica	Periodo Cretaceo	Epoca Paleocene	66 milioni di anni fa
Eone Proterozoico	Era Paleozoica	Periodo Giurassico		146 milioni di anni fa
				200 milioni di anni fa
		Periodo Triassico		251 milioni di anni fa
		Periodo Permiano		299 milioni di anni fa
				359 milioni di anni fa
		Periodo Carbonifero		416 milioni di anni fa
Eone Archeano	Era Precambriana	Periodo Devoniano		444 milioni di anni fa
				488 milioni di anni fa
		Periodo Siluriano		542 milioni di anni fa
				600 milioni di anni fa
		Periodo Cambriano		2000 milioni di anni fa
Eone Archeano	Era Precambriana	Periodo Ediacarano o Vendiano		2500 milioni di anni fa
				3000 milioni di anni fa
				3500 milioni di anni fa
Eone Archeano	Era Precambriana	Periodo Basso Proterozoico		4600 milioni di anni fa

CENOZOICO: ANGIOSPERME, MAMMIFERI, UCCELLI, INSETTI

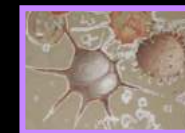
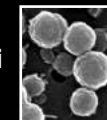


Cambrian explosion

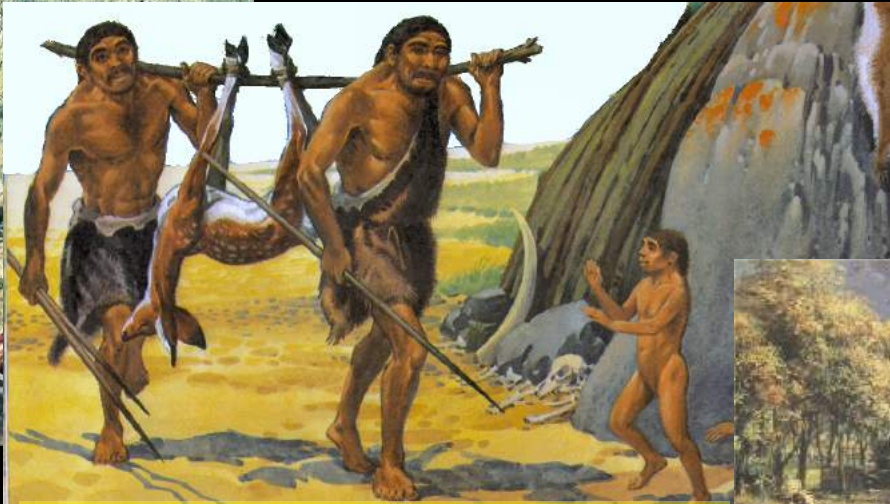
Ediacara fauna

eucarioti pluricell
eucarioti 1-cell
cianobatteri
? batteri eterotrofi

procarioti



2.000.000 Homo habilis



200.000 Homo sapiens

10.000

